

July 22, 2016 2:41:38 PM

149326

Amor

Page 1

Item ID: D3454-5

Accept

N900040100

Setup Start

NS1

Revision ID:

Item Name: Bushing

Stop

NS2

Start Date: 9/28/2016 **Start Qty:** 100.00

100

Cust Item ID:

Required Date: 9/30/2016 **Req'd Qty:** 100.00

100

Customer:

Reference:

Approvals:

Process Plan:

Date:**Tooling:**

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D3454	Rev B								

100		0.00
100	Hardinge CNC LATHE SMALL	
Hardinge	Memo	1.17
Hardinge CNC Lathe Small	1-TURN AS PER FOLIO FA572 & DWG D3454, FOLIO REV: AA DWG REV: 13 2-DEBURR AS REQUIRED	

10/ 50 DAS
49
9-89
16/08/10

110	QC2- Inspect parts off machine FAI/FAIB	0.00
1 1 0		
QC	Memo	0.17
Quality Control		

101 50 DAS
49
9-89
16/08/10

120	QC8- Inspect parts - second check	0.00
120		
QC	Memo	0.33
Quality Control		

101 $\emptyset$ $\frac{32}{9-89}$ $\frac{45}{9-89}$
2016-8-12

DQA:

Date: Sept 21 2016

QA Closed:

Date: SEP 15 2016

WORK ORDER NON-CONFORMANCE / UPDATE

Work Order update only ☐

Work Order: <u>149326</u> Part No. <u>D3454-5</u> NCR No. _____		DISPOSITION Rework ☐ Scrap ☒ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%;"> <tr> <td>Skid-tube ☐</td> <td>Cross tube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☒</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☒	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐																						
Machining ☒	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐																						
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐																						
Large Fab ☐	Composite ☐	Supplier ☐																							
Date: <u>16/08/11</u>		Step #: <u># 100</u>		QTY Effective: <u>850</u>		MRB (QSI042) Approval																			
Description Work Order Deviation				Disposition																					
Found During manufacturing that 0.250 Hole size is 0.258" ($\pm .003$ " over max) DIMENSION TOLERANCE Qty 850 pcs not scrap				SCRAP + DESTROY Replac <u>135327</u>				DAS 16 9-89 16/08/11																	
								Completed By																	
								DAS 49 9-89 16/8/11																	
								Lead hand / Supervisor Approval Verification																	
				QC / QA Coordinator Approval DAS 16 9-89 16/08/11																					

Root Cause			FAULT CATEGORY		
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	☒ Over/Under tolerance
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐
Past Expiry Date ☐	☒ Manufacturing Process	OTHER: _____			
Misidentified ☐	Past Due ☐				

Work Order ID 149326

149326

Page 2

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Item ID: D3454-5 Accept *N900040100* Setup Start *NS1*
 Revision ID: Stop *NS2*
 Item Name: Bushing
 Start Date: 9/28/2016 Start Qty: 100.00 *100* Cust Item ID:
 Required Date: 9/30/2016 Req'd Qty: 100.00 *100* Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start *NR1*
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150	Identify as per dwg & Stock Location <u>5637</u>	0.00				<u>wa</u>	<u>PC</u>		AUG 12 2016
150						<u>100</u>			
Packaging	Memo	0.17							
Packaging									
160	QC21- Final Inspection - Work Order Release	0.00							
160									
QC	Memo	1.67							
Quality Control									

DAS
21
9-89

AUG 15 2016

DAS
21
9-89

AUG 15 2016

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition			
				Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

Picklist Print

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Page 1
1

Work Order ID: 149326

149326

Parent Item: D3454-5

D3454-5

Parent Item Name: Bushing

Start Date: 9/28/2016

Required Date: 9/30/2016

Start Qty: 100.00

Required Qty: 100.00

Comments: IPP REV. A 05.11.17 New Issue EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M303R0.750		Purchased	No			100	f	6.3600	0.0375	3.94737			

M303R0 750

303 Round Bar 0.750

Location

Loc Qty

Loc Code

MAT028

6.36

m135094

6.36

m135327

7.66

DAS
49
9-89

16/08/10

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : _____					

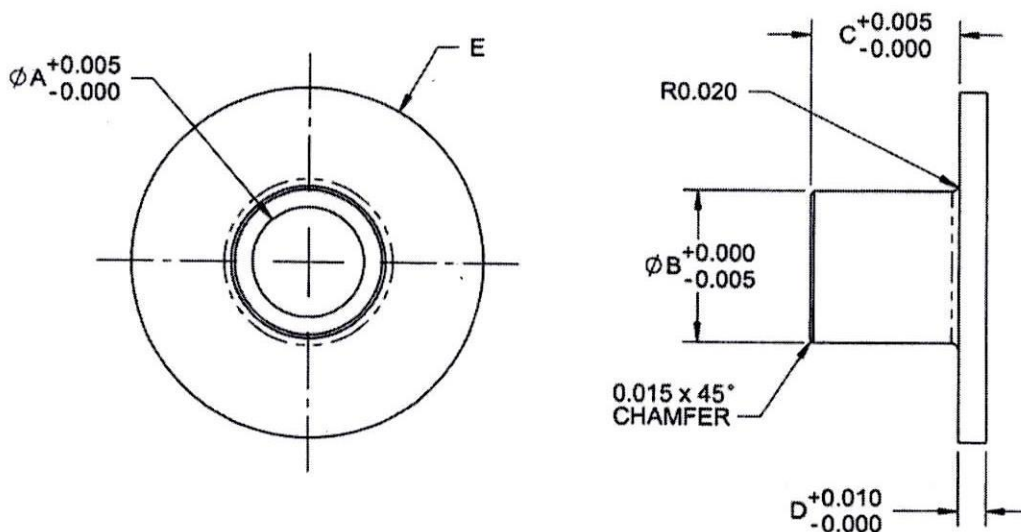


54 7/25/16 149326

DESIGN RF	DRAWN BY RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D3454	REV. B SHEET 1 OF 1
DATE 05.12.05		TITLE BUSHING	SCALE 2:1
A	05.09.02	NEW ISSUE	
B	05.12.05	REVISE -5/-7	

RELEASED

05.12.05 *[Signature]*



D3454-X

1) SPECIFICATION: D3454-X BUSHING

DASH No.

WHERE 'X' IS THE SIZE PER THE FOLLOWING TABLE:

DASH No.	A (in)	B (in)	C (in)	D (in)	E (in)
-1	0.316	0.435	0.420	0.060	1.00
-3	0.316	0.435	0.400	0.060	0.75
-5	0.250	0.372	0.400	0.060	0.75
-7	0.250	0.372	0.343	0.060	0.75



NOTES:

- 1) MATERIAL: AISI 303 SS ROUND BAR (REF. DART SPEC. M303R)
- 2) FINISH: NONE
- 3) IDENTIFY WITH P/N USING FINE POINT PERMANENT MARKER
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) ALL DIMENSIONS ARE IN INCHES
- 6) BREAK ALL UNMARKED SHARP EDGES 0.005 TO 0.010

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